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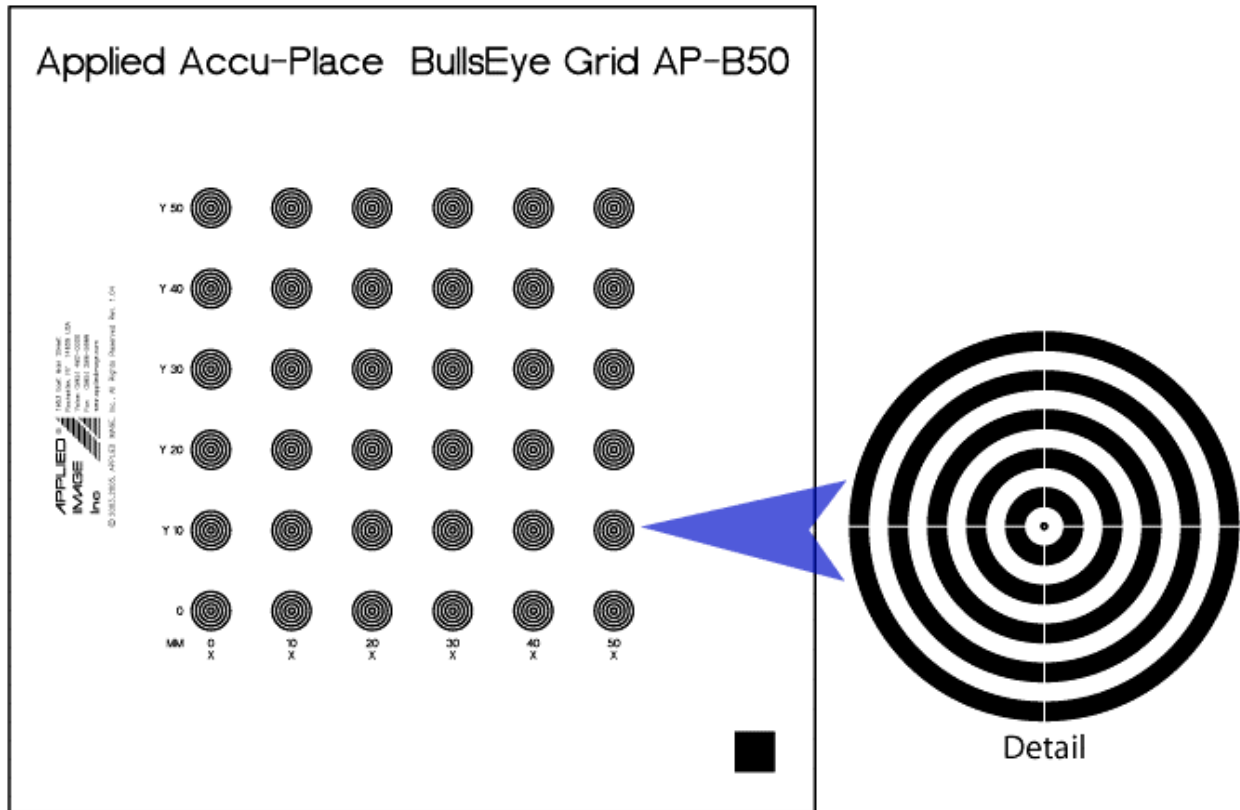
AP-B
Accu-Place™
Bulls-Eye Grid
Product Specifications



Catalog Part No: AP-B50-P / AP-B100-P / AP-B200-P / AP-B300-P

Product Name: Accu-Place™ Bulls-Eye Grid

Drawing / Photo of Part:



The above image is an approximate representation of the actual product.
Specifications are subject to change without notice.

Description: This part family consists of four different size parts, AP-B50, AP-B100, AP-B200, AP-B300.

Substrate Sizes: 100x100mm, 125x125mm, 250x200mm, 350x200mm

Substrate Type: Soda-lime Glass, Transparent polyester, Photo-Paper or Opal Glass. Note: White vinyl can be applied to the back of transparent parts to aid in reflection use. (Extra charge applies.)

Part Number suffix specifies material:

CG = chrome glass; TM = Transparent Material (polyester);

OP = Opal Glass; RM = Reflective Material (photo-paper)

Image Forming Material: Chromium or Photo Emulsion (note; emulsion imaged parts will have missing or degraded “crosshairs” which are superimposed on each bullseye.

Please contact Applied Image customer service at the address noted above, for custom images, shapes and materials.

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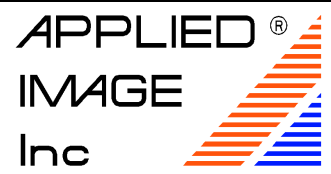


Image Description: Precision concentric circle images placed in a grid pattern. Image pattern sizes are 5mm OD, 5 opaque rings 0.25mm wide each, 4 spaces 0.25mm wide each, center dot is opaque 100 μ diameter, with a 20 μ hole in the center. A crosshair is superimposed on the concentric rings in the form of 30 μ wide spaces.

PN: AP-B50-P-xx

Image Centers: 50x50mm, 55x55mm overall image,

Pitch:10mm , array:6x6

PN: AP-B100-P-xx

Image Centers: 100x100mm, 105x105mm overall image,

Pitch:10mm , array:11x11

PN: AP-B200-P-xx

Image Centers: 200x150, 205x155mm overall image,

Pitch:10mm , array:21x16

PN: AP-B300-P-xx

Image Centers: 300x150mm, 305x155mm overall image,

Pitch:10mm , array:31x16

Polarity: Positive (opaque or black dots)

Reading Direction: Right Read Chrome / Emulsion Up (RRCU / RREU)

History / Typical Use: Checking accuracy of various manual and video measuring instruments. Verification of size and position of video analysis systems and auto-measuring instruments.

Image Contrast / Density: high contrast, optical density 2.0 or higher (chrome or film); photo-emulsion reflection optical density 1.0 or higher

Image Placement Accuracy: 0.002 mm per 100 mm at 68 degrees F (20C). (glass based parts only)

Image Placement Linearity (point to adjacent point): 0.001mm distortion max.). (glass based parts only)

Note: Accuracy is affected by plate flatness and temperature.

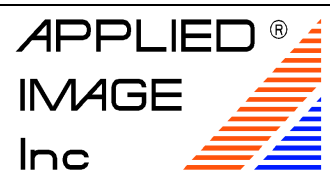
Typical Soda Lime Glass Flatness:

Standard Plates up to 175mm x 175mm; better than 10 μ for any 100mm x 100mm area.

Standard Plates larger than 175mm ; better than 10 μ for any 100mm x 100mm area and a maximum bow of 200 μ .

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Material Notes:

- Thermal expansion coefficient of soda-lime glass is 0.0000045- 0.0000052 inch/inch/ deg. F.
- Flatness of Opal material may vary.
- Specifications reflect standard off the shelf materials.
- Improved materials are available on special order.
- Polyester or paper expansion is the major source of change in photo-emulsion versions. Thermal expansion and humidity expansion are greater for paper bases than other substrates.
- Plates are imaged with the back surface held by a flat vacuum platen. This generally causes the plate flatness to be better than when it is in the free state. The point to point length change from a plate in the flattened state compared to a bowed state is approximately:

Typical length change of glass plate due to plate bowing:

Length	10μ	100μ	200μ	400μ	Bow	
100mm	0.002μ	0.2μ	0.8μ	3.2μ		
200mm	0.001μ	0.1μ	0.4μ	1.6μ		Length
300mm	0.0007μ		0.07μ	0.27μ	1.1μ	Change

Transparent Polyester:

Length and width size changes due to temperature and humidity may vary independently by approximately 10%. Thermal changes influence clear polyester by approx. 0.00001/degree F (this would be a size change of 0.001 inch for a 10 degree F change, over a distance of 10 inches). Humidity affects clear polyester much more (because humidity is much less controlled and changes much more). Typical values are 0.000015/percent change in Relative Humidity (RH) (this would be a size change of 0.0045 inch for a 30 percent RH change, over a 10 inch distance).